

Amendments to the Claims

1. (Currently Amended) A method for enhancing hair growth in a subject, comprising exposing a target area of skin of a subject to the composition of claim 19 a polypeptide comprising an actin-binding peptide, other than a full-length SEQ ID NO:1.
2. (Currently Amended) The method of claim 1, wherein the target area of skin is exposed to the composition of claim 23 polypeptide comprises a fragment of a β -thymosin, or a variant of the fragment that enhances hair growth in the subject.
3. (original) The method of claim 2, wherein the variant of the fragment that enhances hair growth in the subject contains one or more amino acid deletions or substitutions outside of the actin-binding motif.
4. (Canceled)
5. (Currently Amended) The method of claim 2, wherein the target area of skin is exposed to the composition of claim 25 fragment of the β -thymosin is a fragment of thymosin β_4 , is no more than 40 amino acid residues in length, and comprises amino acid residues 17-22 of SEQ ID NO: 1, wherein the fragment of thymosin β_4 includes 0 to 5 conservative amino acid substitutions.
6. (Canceled)
7. (currently amended) The method of claim 5, wherein the target area of skin is exposed to the composition of claim 26 fragment of thymosin β_4 is no more than 20 amino acid residues in length, wherein the fragment of thymosin β_4 includes 0 to 4 conservative amino acid substitutions.
8. (currently amended) The method of claim 5, wherein the target area of skin is exposed to the composition of claim 27 fragment of thymosin β_4 is no more than 10 amino acid residues in length, wherein the fragment includes 0 to 3 conservative amino acid substitutions.

9. (currently amended) The method of claim 5, wherein the target area of skin is exposed to the composition of claim 28~~fragment of thymosin β₄ is no more than 7 amino acid residues in length, wherein the fragment includes 0 to 2 conservative amino acid substitutions.~~

10. (Currently Amended) The method of claim 9, wherein the target area of skin is exposed to a composition comprising~~fragment of thymosin β₄ comprises~~ amino acid residues 17-22 of SEQ ID NO: 1.

11. (original) The method of claim 2, wherein the polypeptide consists of the fragment of thymosin β₄, or a variant of the fragment, that enhances hair growth in the subject.

12. (Currently Amended) The method of claim 9, wherein the target area of skin is exposed to a polypeptide consisting[[s]] of amino acid residues 17-23 of SEQ ID NO: 1.

13. (Currently Amended) The method of claim 9, wherein the target area of skin is exposed to a polypeptide consisting[[s]] of amino acid residues 17-22 of SEQ ID NO: 1.

14. (original) The method of claim 1, wherein the polypeptide is applied topically to an area of alopecia affected skin.

15. (original) The method of claim 14, wherein the area of alopecia affected skin is a scalp of the subject.

16. (original) The method of claim 1, wherein the actin-binding peptide is selected from the group consisting of a fragment of a β-thymosin, a fragment of thymosin β₄, a peptide comprising T-3 but not a full length thymosin β₄, an actin-binding domain of thymosin β₄ that is no more than 7 amino acid residues in length, an actin-binding domain of thymosin β₄ that is no more than 6 amino acid residues in length, a therapeutically effective homolog or variant of any of the foregoing, and mixtures of two or more thereof.

17. (original) The method of claim 1, wherin the subject is a human.

18. (original) The method of claim 1, wherein the subject is a non-human animal.

19. (Currently Amended) A composition for promoting hair growth, wherein the composition comprises:

a polypeptide of no more than 10 amino acid residues in length comprising an actin-binding peptide, other than a full length SEQ ID NO: 1.

20. (original) The composition of claim 19, further comprising a pharmaceutically suitable carrier.

21. (original) The composition of claim 20, wherein the pharmaceutically suitable carrier is a topical pharmaceutical preparation.

22. (original) The composition of claim 20, wherein the pharmaceutically suitable carrier comprises a hydrogel.

23. (original) The composition of claim 19, wherein the polypeptide comprises a fragment of thymosin β_4 , or a variant of the fragment that enhances hair growth in the subject.

24. (Canceled)

25. (Currently Amended) The composition of claim 23, wherein the fragment of thymosin β_4 is no more than 40 amino acid residues in length, and comprises amino acid residues 17-23 or 17-22 of SEQ ID NO: 1, wherein the fragment includes 0 to 5 conservative amino acid substitutions.

26. (Currently Amended) The composition of claim 25, wherein the fragment of thymosin β_4 is no more than 20 amino acid residues in length, wherein the fragment includes 0 to 4 conservative amino acid substitutions.

27. (Currently Amended) The composition of claim 25, wherein the fragment of thymosin β_4 is no more than 10 amino acid residues in length, wherein the fragment includes 0 to 3 conservative amino acid substitutions.

28. (original) The composition of claim 25, wherein the fragment of thymosin β_4 is no more than 7 amino acid residues in length, wherein the fragment includes 0 to 2 conservative amino acid substitutions.

29. (original) The composition of claim 25, wherein the fragment of thymosin β_4 is no more than 6 amino acid residues in length, wherein the fragment includes 0 to 2 conservative amino acid substitutions.

30. (original) The composition of claim 25, wherein the fragment of thymosin β_4 consists of amino acid residues 17-23 of SEQ ID NO: 1.

31. (original) The composition of claim 25, wherein the fragment of thymosin β_4 consists of amino acid residues 17-22 of SEQ ID NO: 1.

32. (original) The composition of claim 25, wherein the polypeptide consists of the fragment of thymosin β_4 , or a variant of the fragment, that enhances hair growth in the subject.

33. (New) A composition for promoting hair growth, wherein the composition comprises:

- (a) a polypeptide consisting of amino acids 1-26 of SEQ ID NO: 1;
- (b) a polypeptide consisting of amino acids 13-23 of SEQ ID NO: 1;
- (c) a polypeptide consisting of amino acids 7-43 of SEQ ID NO: 1;
- (d) a polypeptide consisting of amino acids 13-43 of SEQ ID NO: 1;
- (e) a polypeptide consisting of amino acids 10-28 of SEQ ID NO: 1;
- (e) a polypeptide consisting of amino acids 20-43 of SEQ ID NO: 1; or
- (f) a polypeptide consisting of amino acids 19-26 of SEQ ID NO: 1.